



BODY CONDITION SCORING

A Fact Sheet for the Canadian Beef Industry

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What is body condition scoring?

Body condition scoring (BCS) is a low cost, easy to learn method to determine the amount of tissue cover (fat and muscle) on an animal^{1,2}. BCS is an important tool in evaluating cattle health and nutritional needs. Evaluating BCS using a hands-on method is more accurate than evaluating BCS by just looking at an animal because it allows you to feel the amount of tissue cover rather than just approximate from a distance. In Canada, an animal's body condition is scored on a scale from 1 (emaciated) to 5 (obese)⁶. Ideally, cattle should have a body condition score of 2.5-3.0, but will vary depending on stage of production^{1,6}.

How to body condition score?

Use your hands to feel for tissue cover at:

- The short ribs
- The spine
- The hooks and pins
- Each side of tail head

(See page 2 for the different body condition scores of beef cattle)

The Code of Practice for the Care and Handling of Beef Cattle requires that producers monitor cattle behavior, performance, BCS and health on an ongoing basis and adjust the feeding program accordingly. The Code also requires that producers take prompt action to improve the body condition of cattle with a BCS of 2.0 or less⁶. Additionally, under Canadian transportation regulations, emaciated animals (BCS <2) are classified as unfit for transport.

When to body condition score?

Bulls should be body condition scored weekly during breeding season⁹. Replacement heifers should be body conditioned scored as calving approaches to evaluate their nutritional status because they are still growing and have higher nutrient requirements than mature cows¹⁰. Cows should be body condition scored three times per year:

Table 1 – Body Condition Score Targets for Beef Cattle (assuming spring calving)

Stage of Production	Target BCS (out of 5)
30 days before start of breeding	2.5 - cows
	3.0 - heifers
	3.0-3.5 - bulls
Start of winter feeding program	3.0 - all females
	3.0-3.5 - bulls
Calving	2.5 - mature cows
	3.0 - bred and first-calf heifers

Source: Code of Practice for the Care and Handling of Beef Cattle.

Condition Matters

Cows in ideal body condition (2.5-3.0) may rebreed up to 30 days sooner than under-conditioned cows, have double the pregnancy rate than those of cows in poor condition, as well as have improved milk production, healthier calves, and fewer calving problems^{2,3}. Increasing the number of cows that rebreed in their first estrous cycle of the breeding cycle may result in a 42 lb increase in weaning weight².

Body Condition Scores of Beef Cattle:

BCS 1 – Emaciated

- All skeletal structures prominent and sharp to touch
- Minimal tissue cover over back bone, ribs, hooks, and pins
- No visible fat around tail head
- No muscle tissue visible

BCS 1



BCS 2 – Thin

- Vertebrae along topline are prominent, but not as sharp
- Visually identify individual ribs
- Muscle tissue is not abundant
- Some tissue cover around tail head, over hips and flank

BCS 2



BCS 3

BCS 3 – Ideal weight

- Hooks and pins slightly visible
- Good covering of muscle tissue
- Back bone is no longer visible
- Each side of tail head well filled but not rounded



BCS 4

BCS 4 – Overweight

- Can't feel individual vertebrae or ribs
- Fat cover around tail head evident on both sides with slight rounding
- Folds of fat beginning to develop over ribs and thurl (area over pelvis) area



BCS 5

BCS 5 – Obese

- Flat back
- Bone structure not noticeable
- Tail head and hips covered in fat
- Folds of fat apparent over ribs, thurl (area over pelvis), and thighs
- Tail head to pin area buried in fat



Figure 1: Body condition scoring of beef cattle.

Source: Code of Practice for the Care and Handling of Beef Cattle.

It is important to consider the animal's age, breed, and size when body condition scoring. These factors can affect where body fat is deposited. Younger cattle tend to carry more condition over their topline than older cattle¹. As well, long hair coats can mask poor condition (e.g. prominent ribs, hook and pin bones)¹.

Bulls can be body condition scored in the same manner as cows. Bulls should be in moderate condition (BCS = 3.5) or slightly above as the breeding season nears⁷.

Over-conditioned or fat cows are the costliest to maintain, have increased calving difficulties, decreased calf vigor, calf survival, lower weaning weights, and lower fertility⁴.

A low BCS and inadequate nutrition during the 90-day pre-calving period may cause lighter birth weights, poor colostrum quality, lower calf immunity and survival, decreased milk production, and decreased calf growth². Low BCS can also result in decreased breeding potential and overall herd performance which negatively affects profitability. Furthermore, under-conditioned cows (thin) cows are up to 50% less productive compared to cows in optimal condition².

The BCS of cows at the start of winter feeding period is important as it affects the amount and type of feed required per animal³. For example, to improve one condition score, a 1400 lb cow requires 200 lbs of body weight gain which is much more difficult to achieve in winter.

If bulls are too thin at the start of breeding season they may not hold condition or perform as well. Alternatively, too much condition can affect a bull's performance⁸.

Importance of body condition scoring

BCS can be used to¹:

- Evaluate cattle health
- Identify animals that are thinner than herd average
- Group cows into feeding groups
- Maintain profitability of the operation

BCS allows for an accurate measure of a cow's tissue cover (muscle and fat) which gives a good indication of how to manage nutrition to maximize productivity, especially reproduction². Body condition has a large impact on reproduction³, therefore BCS should be used to achieve optimal body condition of cows throughout the production cycle. The percentage of open cows, calving interval, and calf vigor at birth are closely related to the body condition of cows at calving and throughout the production cycle⁴.

One of the single, most effective things you can do to increase your profitability, is to make body condition scoring part of your routine management. Managing condition is crucial to optimize BCS which is important to profitability. Be sure to keep an eye out for BCS workshops either through Alberta Farm Animal Care or your Cattlemen's Association.

References:

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